a transparent layer comprising a material selected from the group consisting of Si, Ge, GaP, IP, GaAs, InAs, GaSb, InSb, In-Sn oxide, tin oxide, indium oxide, zinc oxide, titanium oxide, Sb-Sn oxide, or combinations thereof disposed on the substrate; and

a reflecting layer disposed on the transparent layer, which is optically reactive with the transparent layer and form s a semi-transparent reflective area of alloy/compound near the interface of transparent layer and reflecting layer after the optical recording medium is exposed to the optical beam, wherein the semi-transparent reflective area activates a mechanism that produces optical contrast before and after recording.

A1 cont.

4. (Amended) The optical recording medium of claim 1, wherein the mechanism distorts optical constants (n & k) and thereby alters the overall reflective intensity.

5. The optical recording medium of claim 1, wherein the mechanism reduces the effective thickness of the transparent layer and changes the optical path of the incident and reflected light from the optical beam, thereby shifting constructive or destructive interference and altering the reflective intensity by the semi-transparent reflective area.

A2

A2 cont

6. (Amended) The optical recording medium of claim 1, wherein the mechanism transforms the polarization angle and thereby alters the reflective intensity by the semi-transparent reflective area.

14. (Amended) The optical recording medium of claim 1, wherein the semi-transparent reflective area is more reflective than the reflecting layer.

15. (Amended) The optical recording medium of claim 1, wherein the semi-transparent reflective area is less reflective than the reflecting layer.

A3

16. (Amended) A method of optically recording information on an optical recording medium comprising a substrate, a transparent layer comprising a material selected from the group consisting of Si, Ge, GaP, InP, GaAs, InAs, GaSb, InSb, In-Sn oxide, tin oxide, indium oxide, zinc oxide, titanium oxide, Sb-Sn oxide, or combinations thereof disposed on the substrate, and a reflecting layer optically reactive with the transparent layer disposed on the transparent layer, which comprises irradiating the transparent layer and reflecting layer with an optical beam to form a semi-transparent reflective area of alloy/compound therebetween, wherein the semi-transparent reflective area is able to activate a

A3 cont. mechanism that produces optical contrast before and after recording.

18. (Amended) The method as claimed in claim 16, wherein the mechanism distorts optical constants (n & k) and thereby alters the overall reflective intensity by the semi-transparent reflective area.

A4

19. (Amended) The method as claimed in claim 16, wherein the mechanism reduces the effective thickness of the transparent layer and changes the optical-path of the incident and reflected light from the optical beam, thereby shifting constructive or destructive interference and altering the reflective intensity by the semi-transparent reflective area.

20. (Amended) The method as claimed in claim 16, wherein the mechanism transforms the polarization angle and thereby alters the reflective intensity by the semi-transparent reflective area.